2007 Engineering Conference Breakout Sessions

1. Transportation Fairs
Track: Public Involvement
Presenters: Myron Lee, Geoff Dupaix, Andy Neff, Angelo Popastamos, Tamerha Maxwell, Justin Smart (Langdon Group)
Synopsis: If you work in planning, project management, environmental, and even construction and you notice a lot of transportation projects within a specific area, what can you do to help the public not get overwhelmed with all the information from the different projects? Come find out about transportation fairs and how they can help the public see how projects fit within the bigger transportation picture. This presentation will show you why and when to use them.
Time Required: 90 Minutes

2. Construction Level P.I.
Track: Public Involvement
Presenters: Myron Lee, Josh VanJuara and Steve Poulsen
Synopsis: Planners and designers can spend years moving a road project through the environmental and design phases. But only when the first barrels appear and heavy equipment starts rolling through a project do people fully realize what potential conflicts loom between contractor, business owner, and motorist during construction – emotions can begin to run high and confrontations may seem necessary. This breakout session will explore how resident engineers, field engineers and construction project managers can calm the nerves of residents and business owners during the construction phase of a road project, how conflicts may be resolved before they arise, and how UDOT and its contractors can benefit from well placed public involvement activities during construction.
Time Required: 50 Minutes

3. "Know Where Know Why" Media / PR Strategy
Track: Public Involvement
Presenters: Chris Thomas, Aubrey Cichelli, Nate McDonald (The Intrepid Group)
Synopsis: The strategy, tactics and results of the inaugural "Know Where Know Why" summer construction campaign. In addition, the initial plans for the 2008 campaign will be discussed and include an open forum for input and feedback.
Time Required: 90 Minutes

4. Collaboration in NEPA: improving decisions by engaging effectively with agencies and the public
Track: Public Involvement
Presenters: Janet Barbieri and Nicholas Dewar (Jones & Stokes)
Synopsis: "Collaboration in NEPA" - happens to also be the title of a proposed CEQ guidance document that was released for public review on March 16. The guidance focuses on the benefits of a collaborative approach to NEPA compliance. It also provides case studies and sample documents for the collaborating agencies.
Time Required: 50 Minutes

5. New Regulatory Wetland Guidance
Track: Environmental
Presenters: Ken Bogdan (Jones & Stokes)
Synopsis: New regulatory wetland guidance has come out discussing Clean Water Act jurisdiction following the U.S. Supreme Court decision in Rapanos v. United States. This session will discuss the new guidance and how it affects transportation projects.
Time Required: 50 Minutes

6. Wildlife Crossings - A Corridor Perspective
Track: Environmental
Presenter: Patricia Cramer & Bill Ruediger
Synopsis: Wildlife crossing can and do work. They can be an important part of the context sensitive solutions for your projects. Installing them in the wrong location, or without the right entrance characteristics can greatly reduce their effectiveness. Locations are best determined at the corridor level. This session explains the methodology and process UDOT went thought on a recent study of I-70 in Region Four to determine future locations for wildlife crossings. A key ingredient to making crossings happen is to make them both economical and effective - these key factors will be part of the discussion.
Time Required: 90 Minutes

7. Categorical Exclusion Document Preparation
Track: Environmental
Presenter: UDOT Central Environmental Staff
Synopsis: This session will focus on the preparation of Categorical Exclusion Environmental Documents. A tutorial of the ePM Categorical Exclusion Form will be demonstrated. Common mistakes and reoccurring problems will also be discussed.
Time Required: 50 Minutes

8. Accelerating the EA Process: Lessons Learned from SR-68
Track: Environmental
Presenter: Amy Zaref/Chris Elison, Parsons Brinkerhoff
Synopsis: This session will focus on how to develop a schedule and approach to accelerate the EA process. The NEPA process allows for flexibility, this session will examine ways to meet the NEPA requirements and apply environmental impact analysis methods to develop a NEPA document that "fits" the size and scope of the project. We will use the SR-68, Bangerter Highway to Saratoga Springs EA as an example to share lessons learned, both what worked well and where the process could have been improved.
Time Required: 50 Minutes

9. Emissions Impossible – The UDOT Quarry Permitting Case Study
Track: Environmental
Presenters: Mark Hooyer, Kleinfelder, Inc., Salt Lake City, Utah, Mike Robinson, P.E., Kleinfelder, Inc., Reno, Nevada, Todd Jensen, Utah Department of Transportation, Legacy Parkway Team**.**
Synopsis: This talk highlights the methods and resources used to accomplish this remarkable project. It started with an “impossible” request. To reduce rising construction material costs for Utah’s high-profile Legacy Parkway project. This quarry would be used to provide an estimated 4 million tons of needed aggregate materials at little to no cost to the contractors bidding on the project, thus offsetting escalating construction costs. To accomplish this project, a core team of eleven personnel with expertise in air quality and mining engineering teamed together for five weeks. Innovative approaches were needed to accomplish this project within the deadlines and regulatory constraints at hand.
Time Required: 50 Minutes

10. Mountain View Corridor Update
Track: Environmental
Presenter: MVC Team
Synopsis: An update of the Mountain View Corridor Project.
Time Required: 90 Minutes

11. Link Planning and NEPA GIS Tool
Track: Environmental
Presenter: Terry Johnson, Chris Glazier, UDOT
Synopsis: In an effort to link planning and NEPA, UDOT in cooperation with AGRC and ESRI has developed a GIS web-based application. It is intended to aid transportation planners and environmental decision makers in accessing and analyzing environmental data layers. This session will introduce and demonstrate this new application.
Time Required: 50 Minutes

12. MOTIVATE ME I DARE YOU!
Track: Leadership/Organizational Issues
Presenters: Kirk Weisler
Synopsis: Expectations of UDOT are High, and leaders are asking, “How do I motivate these people?” At the same time many are also wondering, “And how can I keep my self motivated too?” The answer is both easier and harder than you think. This is a high energy, high octane session where we’ll revisit the source of motivation as we seek to understand how to keep ourselves and those around us more motivated, more committed and more engaged.
Time required: 50 minutes

13. INSIGHT – FULL!!
Track: Leadership/Organizational Issues
Presenters: Kirk Weisler
Synopsis: Kirk Weisler, Chief Morale Officer
Life is much too short not to enjoy what you do everyday...and not to love and have fun with the people you do it with. But what can one person do to build community (TEAMWORK) and create a more positive office culture? This session is the answer to that question...because there are lots of things that can be done to help build a greater sense of "TEAM" in any workplace…including yours! And this Session promises to be INSIGHT-FULL of ideas to help you do just that.

Come Join Chief Morale Officer, Kirk Weisler and experience a Stimulating NON-Stop super FUN session that will help you, help your team with fun and involving activities that you will be able to replicate upon your return from this conference.
Time required: 50 minutes

14. The Future of Engineering: Civil Engineering in 2025
Track: Leadership/Organizational Issues
Presenters: Blaine Leonard
Synopsis: This presentation is based on some studies which have been carried out by the National Academy of Engineering, ASCE, and others. It looks at trends affecting our industry, and the world, and "predicts" some of the conditions we will be dealing with in 25 years. It is a "gee whiz" presentation with all kinds of facts and trends, which causes us to think in the bigger picture and look forward a couple of decades.
Time required: 50 minutes

15. Lessons Learned from the Attorney General's office on UDOT projects
Track: Leadership/Organizational Issues
Presenters: AG Office
Synopsis: One of the best breakout sessions happened two years ago. Two members of the Attorney General staff discussed legal cases that involved UDOT. They talked about what we did right and what we did wrong and what we could do to improve our chances with the courts.
Time required: 50 minutes

16. UTA Project Updates
Track: Leadership/Organizational Issues
Presenter(s): Steve Meyers
Synopsis: A presentation to give updates on CommuterRail and light-rail spurs.
Time required: 90 minutes

17. University Students
Track: Leadership/Organizational Issues
Presenter(s): Rick Murdock
Synopsis: A UDOT-sponsored informational session for University Student attendees.
Time required: 50 minutes

18. Bonded Wearing Course Performance and Site Selection
Track: Materials
Presenters: Oscar Moreno and Tim Biel
Synopsis: The Bonded Wearing Course (BWC) process places an ultra-thin hot mix over a polymer modified asphalt membrane. The BWC process is quick, completed in one pass by a spray paver, which means the road can be opened to traffic sooner. The Polymer modified asphalt membrane protects the pavement from moisture damage, therefore reducing the effects of reflective cracking. It can be placed in one pass, without milling, quick construction and return to traffic mean shorter user delays and lower user delay costs. Coarse aggregate matrix results in reduced backspray, for greater visibility in wet weather as well as good macrotexture, and an ultrathin lift means maintaining overhead clearances, curbs and drainage profiles as well as lower costs.
Time required: 50 minutes

19. Roadway Design with Maintenance in Mind
Track: Roadway Design
Presenters: Steve Acerson, Region 3 Station Supervisors, Lynn Bernhard
Synopsis: Despite our best efforts, an otherwise well done roadway design sometimes results in challenges of various varieties for maintenance forces. These challenges may be related to winter maintenance, or to accessibility to features that may require maintenance, or to materials that may be difficult to replace or repair, or to other aspects of the design. Most often these challenges are remedied by simple design changes. Early, close coordination with the local station supervisor is often the best way to both identify problem areas that should receive extra attention during design, and to avoid or minimize maintenance challenges with the finished product.
Time required: 90 minutes

20. UDOT Maintenance Blasting Program
Track: Maintenance
Presenters: AJ Rogers, Les Henrie, Layne Slack
Synopsis: The Price district has been doing quite a bit of explosives work in the past three or four years, more than anyone else in the state, not counting the avalanche crews. Price is considering offering the services of its blasting crew to the rest of the Regions in the future, as they are probably the most experienced, at least recently experienced. This presentation will cover some of the services a blasting crew could provide, including rock slide removal, beaver dam eradication, boulder busting, etc. It will also demonstrate the latest technology in blasting components and techniques, and explain the Department's blaster training program put on by Les Henrie, Ree Schena, and Layne Slack.
Time required: 50 minutes

21. Emergency Operations - Are We Ready?
Track: Maintenance
Presenters: Major Jeffery Graviet (Deputy Director, Utah Division of Homeland Security), Tracy Conti, Dave Kinnecom
Synopsis: How is the state of Utah organized to respond to emergencies? What emergencies should we plan for? Earthquakes, floods, multiple accidents, range fires? What is the role of the new Division of Homeland Security in the Department of Public Safety? What are the requirements of the National Incident Management System and the Incident Command System? What is UDOT's plan for emergencies and what does it mean for you?
Time required 50 minutes

22. Maintenance Decision Support Systems (MDSS) Road Show
Track: Maintenance
Presenter: Russ Robertson (FHWA Utah Division)
Synopsis: Each year, the Federal Highway Administration (FHWA) spends much effort developing and deploying innovations that are designed to meet critical highway needs. To maximize the effectiveness of promising technologies, FHWA has taken a close look at how technologies were deployed or marketed and has identified 24 "Priority, Market-Ready Technologies and Innovations" that the Agency has designated as "push" technologies, as well as other solutions that are presently being successfully deployed. MDSS is one of these technologies. MDS Systems are advanced tools for forecasting weather events in real time for specific locations, and for using the data to make decisions regarding the maintenance response to the storm. The Road Show is a free seminar aimed at transportation managers, maintenance engineers and operators. It describes the MDSS and its capabilities, providing a level of detail that helps public agencies make more informed decisions about their maintenance investments.
Time required 50 minutes

23. Maintenance Planning and Operations: "Where we've been, where we are, and where we are going"
Track: Maintenance
Presenters: Tim Ularich, Mike Marz, Lloyd Neeley, Eugene Simon (AgileAssets)
Synopsis: This session will take a look at the history and development of maintenance management practices using computer systems and the current development of the Operations Management System (OMS). The first part of the session will be a PowerPoint highlighting MMS, MMQA, and MFI in their current form. The second part will be a demonstration of some of the functions within OMS that will help with the implementation of Zero Based Budgeting (ZBB) for maintenance and construction budgets. The session will wrap up with a Q&A period.
Time required 50: minutes

24. Context Sensitive Solutions (CSS) Institutionalization – Are we there yet? Where are we heading?
Track: Project Management
Presenters: Angelo Papastamos
Synopsis: Come see the new CSS Inner-web site, learn how to get CSS certified, and interact with some true champions of UDOT's CSS Philosophy. You will hear a few success stories of implementing UDOT's CSS Philosophy from a few different perspectives and of course, being context sensitive, you will have an opportunity to share with us your CSS thoughts and perspectives.
Time required: 90 minutes

25. Geofoam Settlement Performance
Track: Geotechnical
Presenters: Clifton Farnsworth
Synopsis: Comparison of construction time, cost, and performance for a one-stage MSE wall with Lime Cement Columns, Geofoam embankments and two-stage MSE walls with PV drains as reported on the ASCE Geotech Journal (proceedings of UDOT/UofU research venture).
Time required: 50 minutes

26. ePM for Functional Managers
Track: Project Management
Presenters: Tony Lau and Griff Campbell
Synopsis: Overview of Functional Manager's responsibilities and how using the ePM System can help manage resources and schedules. We will explore new features, how a Project Manager sets up a project, how to conduct project research for payroll & reporting, updating project activity dates and hours for the MPS (Multiple Project Scheduling) run and how to use the system to determine your workload.
Time required: 50 minutes

27. What PMs need to know about the Project Advertisement Checklist
Track: Project Management
Presenters: Marjorie Sanchez, Kathy Starks, Betty Bangerter
Synopsis: Tips to successfully prepare the Advertisement Checklist for Federal projects including plan sheets. UDOT and FHWA requirements for advertisement of Federal projects will be discussed. A panel will be available to answer questions.
Time required: 50 minutes

28. Salt Lake County West Side Bicycle Study
Track: Systems Planning and Programming
Presenters: Travis Jensen
Synopsis: Presentation about a comprehensive bicycle planning study that was done to address future needs and priorities for bike routes in western Salt Lake County. The purpose of the study was to (1) obtain existing bicycle plans from communities within the study area, (2) put all of the proposed routes onto a single set of maps, (3) recommend a method for prioritizing the routes, and (4) discuss design considerations that will likely be important in the area.
Time required: 50 minutes

29. GIS and Dixie Western Corridor Study
Track: Project Management
Presenters: Thomas McMurtry and Lowell Elmer
Synopsis: Developing alignments for a future corridor can be a difficult, but beneficial process. A corridor study can ease the work required for an EIS by doing effective analysis and using good local data and expertise. The Dixie Western Corridor Study was a rewarding project that identified a future alignment of a major corridor. Like many major roadway projects the Dixie Western Corridor Study had several daunting issues including: protected species habitat in the study area, elevation and slope problems, existing residential communities, crossing two rivers and others. Through a process of weighting and measuring different criteria using GIS, each of these issues and many more were addressed and different alignment options were evaluated. There were lessons learned and success stories associated with this project including, working with agencies like the BLM to back the recommended corridor and calming a hot political issue. Corridor studies like this one are a way to exercise good planning. Preserving an alignment prior to development reduces impacts and costs for the corridor and addressing concerns and issues early allows time for compromising solutions.
Time required: 50 minutes

30. Construction Manager General Contractor (CMGC) Update and Lessons Learned
Track: Project Management
Presenters: Fred Doehring/Stan Burns and Tamerha Maxwell/Rick Torgerson
Synopsis: CMGC process status update and Lessons Learned from projects done to date including two Region 4 CMGC projects the SR-18 Widening and the Southern Parkway, including what worked well and what was a challenge for these projects.
Time required: 90 minutes

31. Cost Estimate Validation Process (CEVP)
Track: Project Management
Presenters: Fred Doehring and Steve Poulsen
Synopsis: The Role of CEVP in UDOT
Time required: 50 minutes

32. Accomplishing UDOT's Final 4 Strategic Goals using Low Cost ITS Concepts
Track: ITS / Traffic Management / Safety
Primary Presenters: Mark Taylor, Ralph Paterson, Danielle Herrscher, Dr. Grant G. Schultz, Ph.D., P.E., PTOE
Synopsis: This session will cover the following topics: Ramp Metering Benefits, Advanced Warning Signs, Traffic Signal Dilemma Zone Safety and Efficiency using Radar, Variable Lane Use, RWIS, and Flashing Yellow Arrow for Permissive Left Turns.
Time Required: 90 minutes

33. Two-Lane Rural Highway Safety and Design Integrity using IHSDM
Track: ITS / Traffic Management / Safety
Primary Presenters: Mitsu Saito
Synopsis: Dr. Saito and his research assistants have been conducting a study related to two-lane rural highway safety and design integrity evaluation using FHWA's IHSDM (Interactive Highway Safety Design Model) software to evaluate how IHSDM can be incorporated in regular safety audit practices. By November, most of the work will have been completed and findings will be presented.
Time Required: 90 minutes

34. Pedestrian Access Update
Track: ITS / Traffic Management / Safety
Presenters: Larry Montoya, Dan Snell (PEC)
Synopsis: Still confused about ped ramps and what is required by the stipulation settlement? This session will provide an up-to-date overview of the pedestrian access program including: available funding; necessary funding utilization; project package preparation; construction issues; ramp evaluation; database; and requesting funding support for orange book projects.
Time Required: 90 minutes

35. Sign Design Manual
Track: ITS / Traffic Management / Safety
Presenters: John Leonard & Tim Taylor
Synopsis: The new UDOT Sign Design Manual has been developed to provide general sign design guidelines for UDOT, clarify direction when the MUTCD provides more than one option and address signing unique to UDOT.
Time Required: 50 minutes

36. Guardrail, Barrier, Crash Cushions—Policy and Practice
Track: ITS / Traffic Management / Safety
Presenter: John Leonard
Synopsis: Guardrail, barrier and Crash Cushion policy and practice will be discussed at this session.
Time Required: 50

37. Changes to Standard Traffic Control Drawings
Track: ITS / Traffic Management / Safety
Presenter: John Leonard
Synopsis: Recent changes to the Traffic Control Standard Drawing will be discussed at this session.
Time Required: 50

38. Work Zone Safety and Mobility Policy
Track: ITS / Traffic Management / Safety
Presenter: Kris Peterson, Robert Miles, Roland Stanger
Synopsis: Find out the latest on the Work Zone Safety and Mobility Policy.
Time Required: 50 minutes

39. Safety Performance Measures and Comprehensive Safety Plan
Track: ITS / Traffic Management / Safety
Presenter: Robert Hull
Synopsis: UDOT as part of the Utah Safety Leadership Team, has completed the Utah Comprehensive Safety Plan. This Plan is required for every state under SAFETEA-LU. The Plan identifies mitigation strategies and lead agencies for 21 safety areas of concern. In addition, safety performance measures have been developed as target fatality reductions for each safety area with in the Plan. The next step is implementing the Plan within UDOT.
Time Required: 50 minutes

40. Safe Routes to School

Track: ITS / Traffic Management / Safety
Presenter: Michael Kaczorowski
Synopsis: FHWA has initiated a program whose goal is to encourage students to walk or bike to school. The program will award funds to both infrastructure projects such as sidewalks, and non-infrastructure projects such as incentives and events that educate and promote waking and biking to school. Those applicants awarded funds must hire their own engineers for design and construction management, so this session should interest contractors and design firms.
Time Required: **50 minutes**

41. Technology Transforming Transportation (VII Update)
Track: ITS / Traffic Management / Safety
Presenters: Bryan Chamberlain and Richard Manser
Synopsis: Using technology to communicate between the vehicle, the roadway and the driver will provide major breakthroughs in safety and mobility on the highways. Many of the major car manufactures along the USDOT and many of the state DOTs, including UDOT, are working together to make this vision a reality. Proof of concept testing is currently underway in Michigan where 75 miles of roadway has been instrumented with 57 wireless units installed at key intersections. Information exchanged includes traffic signal timing, advisory information for the driver, vehicle data including speed, direction, location, etc. Come learn more about the status of the Vehicle Infrastructure Integration initiative and how it will impact the future of transportation.
Time Required: **50 minutes**

42. Safety Analysis of Fatigue and Drowsy Driving
Track: ITS / Traffic Management / Safety
Presenter: Dr. Grant G. Schultz, Ph.D., P.E., PTOE
Synopsis: Fatigue and drowsy driving is one of the primary focus areas of the "ZERO Fatalities" initiative currently underway in the state. The purpose of this session is to summarize research related to fatigue and drowsy driving in the state of Utah. This will include providing a summary of high crash locations where fatigue and drowsy driving is assumed to be the significant causal factor of crashes. Also included is an evaluation of the effectiveness of current mitigation measures utilized by UDOT including the interstate fatigue warning signs currently in place on I-80 in the west desert. Possible engineering solutions to mitigate the concerns at locations identified wherein fatigue and drowsy driving is assumed to be the significant causal factor of crashes will be provided including additional signage, rumble strips, rest stops, and others. The results of this session will be to summarize direction and guidance provided to UDOT on the identification and prioritization of corridors in which driver fatigue is a potential causal factor for crashes.
Time required: 50 minutes

43. A Prioritization Process for Access Management Implementation in Utah
Track: Systems Planning and Programming
Presenters: Grant G. Schultz, Ph.D., P.E., PTOE; Kordel Braley, EIT
Synopsis: Appropriate access management techniques can improve the safety and efficiency of arterial roads. To determine which roads can most benefit by the implementation of access management techniques, a prioritization process was developed to recommend various access management treatments. To serve as the basis for the performance index, a database was created including identifying features, characteristics, and crash history for 175 arterial road segments on Utah state routes. Stepwise linear regression was applied to the data collected to determine which characteristics of the roads were correlated with crash rate, crash severity, and specific collision types. Recommendations for access management treatments were given in the form of a decision tree to classify existing or future road segments into subcategories based on volume, signal spacing, land use, and other criteria with recommendations provided for each subcategory. The purpose of this session is to present the results of this analysis and to discuss the prioritization of access management techniques.
Time Required: 50 minutes

44. Highway Financing in Utah
Track: Systems Planning and Programming
Presenters: Linda Hull, Robert Pelly and Max Ditlevsen
Synopsis: An update/overview of all federal and state sources of funds for projects, including include a short piece on the ePM /STIP module to show how all funding is tracked and to showcase some functionalities of the system.
Time Required: 90 minutes

45. Asset Management & Pavement Management Programs
Track: Systems Planning and Programming
Presenters: Gary Kuhl, Tim Rose, Austin Baysinger and Steve Poulsen
Synopsis: A programmatic discussion of pavement program development, based on field needs and budget realities. Also Asset Management principles and UDOT's philosophy on Asset Management, what tools and data are used to develop the Department's System Preservation Plan.
Time Required: 90 minutes

46. Building and using GIS Data for Transportation Planning
Track: Systems Planning and Programming
Presenters: Bert Grandberg, AGRC; Terry Johnson, UDOT.
Synopsis: 1) GIS Transportation Model and Data, 2) AGRC and Geospatial Transportation Environmental Assessment System.
Time Required: 50 minutes

47. AGRC Services
Track: Systems Planning and Programming
Presenters: Derek Peterson, Rick Kelson, Jeannie Watanabe and Rick Kelson
Synopsis: 1) Discussion of the GPS RTK Network, 2) High resolution imagery for Utah, and 3) State Geographic Information Database
Time Required: 90 minutes

48. AGC Roundtable Discussion
Track: Construction/AGC
Presenter: Rich Thorne
Synopsis: An opportunity to discuss the past years successes and problems and determine how to improve things or continue for them to go well.
Time Required: 90 minutes

49. Legal Issues in UDOT Construction
Track: Construction/AGC
Presenter: Bruce Garner
Synopsis: This presentation will cover construction contract issues including rules of contract interpretation, liquidated damages, termination, general contract law, and indemnity provisions.
Time Required: 50 minutes

50. Recap of the Progress on UDOT's Major Projects; Legacy, I-15 NOW, Provo Canyon
Track: Construction/AGC
Presenters: Randy Jefferies, Todd Jensen, and Jim Golden
Synopsis: Recap of the Progress on UDOT's Major Projects; Legacy, I-15 NOW, Provo Canyon
Time Required: Two back to back sessions, 90, plus 50 minutes

51. Alternatives in Paving: Rubberized Asphalt Applications in Freeze/Thaw Climates
Track: Materials
Presenters: Saleem Khatak, Bob Syme and Keith Goodson
Synopsis:
Pavement life is a big issue for any organization responsible for the installation and maintenance of roadways. Milled and overlaid asphalt traditionally lasts 15-20 years in milder climates, historically, those same applications have an average lifespan of 8-10 years in climates where there are higher numbers of freeze-thaw events, higher levels of ultraviolet light, and other conditions that exist in less mild and mountainous climates. Asphalt pavement modified with tire rubber has been used experimentally since 1950 with success in mild climates…but somewhat unsuccessful attempts have been made in climates such as in Utah and Colorado. This session will explore an alternative for climates such as Utah. In 2006, the City of Colorado Springs, Colorado, took on the challenge of creating and testing a new rubberized asphalt blend in hopes of easing their roadway maintenance angst. Four test sections of Terminal Blend Tire Rubber Asphalt (TBTRA), or Permeable Friction Course (PFC) Pavement, have been created with almost S miles of roadway. Although testing will continue for another year, and four more miles of test sections are planned for 2007, initial results are creating optimism. This experiment will serve as a Case Study for the Breakout Session.
Time required: 90 minutes

52. UDOT Standard Specifications – 2008 Edition (Materials Specifications)
Track: Materials
Presenters: Central Materials Staff – Tim Biel, Kevin VanFrank.
Synopsis: The 2008 specification book represents a significant amount of review and work. UDOT staff did extensive reviews of all specifications. What changed. Why? How do the changes impact projects? This session addresses changes to Material specifications.
Time Required: 90 minutes

53. Full-Depth Recycling, & Cold-In-Place Recycling
Track: Materials
Presenters: SEM Materials – Craig Haskell
Synopsis: An overview of these technologies, recent developments and applications in Utah.
Time Required: 50 minutes

54. Cement Sustainability
Track: Materials
Presenters: Todd Laker, Holcim Cement
Synopsis: As the construction industry is becoming more and more "Green" it is important to understand how cement, a major component of concrete, can also be environmentally friendly. The Cement industry has sustainable initiatives that are greatly affected by specifications, however blended cements are gaining acceptance. These products help cut CO2 emissions, lower energy consumption and are engineered to perform equal to original Portland cements. This presentation will explore sustainable options and solutions in the cement industry.
Time Required: 50 minutes

55. Freeze-Thaw Durability of Pervious Concrete
Track: Materials
Presenters: Bill Jex and Ben Blankenship, Ash Grove Cement Company, Jerry Hall, PE, Geneva Rock, Spencer Guthrie, PhD, BYU
Synopsis: This is a presentation that introduces pervious concrete. Discusses how pervious concrete can be used practically in our everyday environment. The environmental benefits of pervious concrete will be covered. With everyone talking about building "green," pervious concrete is a hot topic to discuss. As well as environmental benefits, there are cost benefits associated with the use of pervious concrete. Presents how to design a pervious concrete mix as well as the pertinent information about placing and curing pervious concrete. Spencer Guthrie and some graduate students at BYU are conducting a durability study at this time using local materials that will provide information to support the large amount of data that is already out there showing that pervious concrete is a durable product in freeze thaw environments. We could also discuss the potential for pervious projects in the Salt Lake City area.
Time Required: 50 minutes

56. Validity of Concrete Testing
Track: Materials
Presenters: Ben Blankenship, Ash Grove Cement Company
Synopsis: We have now conducted 4 test fests. Test Fest is an event where concrete field technicians from various organizations are invited to participate in concrete testing on one uniform batch of concrete. The goal of the Test Fest is to have technicians representing all phases of the industry including Ready Mix, Pre-cast, State and Local Government, contract laboratories, etc. Data from the testing is gathered in a purely random fashion and presented in such a way that variation in the testing can be analyzed. Data from the four Test Fests has shown a large amount of variation in all of the standard field concrete tests: pressure air, slump, unit weight, temperature, and strength. We hope that this data can be used to help us as an industry to improve upon concrete testing procedures in the field and in the lab. I would like to discuss trends in the Test Fests and how they compare with other similar programs going on around the country.
Time Required: 50 minutes

57. Concrete Overlay
Track: Materials
Presenters: Ron Youngman, PE, CO/WY ACPA, Mitzi McIntyre, UT Chapter, ACPA
Synopsis: Concrete overlays can serve as cost-effective maintenance and rehabilitation solutions for almost any combination of existing pavement type and condition, desired service life, and anticipated traffic loading. Inch for inch, concrete overlays are one of the most cost-effective, recyclable pavement alternatives.
Time Required: 90 minutes

58. Project Level Materials Documentation for Resident Engineers / Project Managers (recommended for Consultants)
Track: Materials
Presenters: Tim Biel, UDOT Engineer for Materials, Paul Anderson, PEC
Synopsis: Understanding materials, protocol, decision-making, and how to interpret specifications.
Time Required: 90 minutes

59. How to use SUE effectively on projects
Track: Design
Presenters: Elisha Ritchie & Vince Reger
Synopsis: What can SUE do for your project and how can it save time and money.
Time required: 50 minutes

60. Proposed update to design process
Track: Design
Presenters: Fred Doehring
Synopsis: Two brand new networks have been added to the ePM system! The New Design Network replaces the venerable 08-1 design process. Also a Design Build network will be introduced.
Time required: 50 minutes

61. 3500 South Bangerter CFI Lessons Learned & General Operation
Track: Design
Presenters: Craig Wagner, Lisa Wilson (Region Two Project Manager), David Thompson (Thompson Transportation), and Oanh Le (Region Two Traffic Signals Engineer)
Synopsis: UDOT & Thompson Transportation will present the challenges during the design, signal construction, and initial operations of the 3500 South Continuous Flow Intersection. This project was completed in September 2007 and took 7 months to build. This is the first such intersection in Utah amongst the hand full in the country. This session will also focus on the general operation of this unique and innovative intersection.
Time required: 50 minutes

62. Cost Estimating
Track: Design
Presenters: Jason Henrie, Robert Miles and Various UDOT Personnel
Synopsis: What tools are out there and how do you use them to come up with a good estimate?
Time required: 50 minutes

63. Intersection Design
Track: Design
Presenters: Lisa Baird, Ken Talbot, Jessica Rice, and Brandon Cloward.
Synopsis: A brief introduction to designing an intersection. This session will talk about cross slopes at an intersection, layout of an intersection, tapers and taper rates at intersections, pedestrian ramps, using InRoads to turn your 2D linework into a 3D model, and more.
Time required: 90 minutes

64. Digital Signatures
Track: Design
Presenters: Bob Peterson
Synopsis: This course will help consultants to become familiarized with the use of digital signatures on their Design Projects. This courses intended audience is Consultants who take part in the design process.
Time required: 50 minutes

65. Cadd Tips and Tricks
Track: Design
Presenters: Jim Buckley and Renee Ye
Synopsis: This course will have tool tips for Microstation and will have an overview of the new macro toolbox that has been created to help increase productivity by helping speed up repetitive tasks within Microstation. This courses intended audience is primarily for those who use Microstation.
Time required: 50 minutes

66. Automated Machine Control (Survey)
Track: Design
Presenters: Derek Peterson
Synopsis: The will be a general overview of Automated Machine Control. This courses intended audience is Designers, Consultants, Construction Personnel and others that may be interested in Automated Machine Control.
Time required: 50 minutes

67. Project Wise
Track: Design
Presenters: Bob Peterson
Synopsis: This session will talk about the current status of the ProjectWise implementation and what future plans the department has for document management. ProjectWise is a document management system that was developed by Bentley Systems, Inc.
Time required: 50 minutes

68. Visualization
Track: Design
Presenters: Paul Wheeler
Synopsis: New Visualization Process-This course will describe the new process for having visualization work performed on projects within the Department. This courses intended audience is Project Managers, Designers, and others that may want visualization work performed within the Department.
Time required: 50 minutes

69. Plan of Action for Scour Critical Bridges in Utah
Track: Structures/Research/Hydraulics/RofW
Presenters: Remmet DeGroot and Denis Stuhff
Synopsis: Plan of action for all scour critical bridges on State Roads. FHWA requires these plans to be in place. A statewide requirement and an informative session on this topic, make it applicable for a wide audience. The presentation includes a description of common scour problems, the procedures and methodologies used in analyzing each fridge, and proposed countermeasures, all illustrated with relevant photo's and maps from representative examples.
Time required: 90 minutes

70. Accelerated Bridge Construction (ABC) Techniques (1/2 Day)
Track: Structures/Research/Hydraulics/Right of Way
Presenters: Richard Miller, Boyd Wheeler, Danny Page, and Designers of ABC Projects
Synopsis: A look into the future of structural construction, replacement, and rehabilitation in Utah using accelerated bridge construction (ABC). ABC will be used on all upcoming projects that include major structural work in order to significantly reduce impacts to the roadways. This half day session will present many of the methods of ABC, lessons learned, and issues, challenges, and successes of ABC. It will also showcase several projects at all levels of design and construction, such as the cutting edge SPMT (Self-Propelled Modular Transport) replacement of the 4500 South over I-215 structure. There will be an hour and a half round table discussion for anyone to bring up their questions or concerns.
Time Required: ½ Day Workshop

71. Biofuels Project
Track: Structures/Research/Hydraulics/RofW
Presenters: Abdul Wakil, Dr. Ralph Whitesides, and Dallas Hanks from USU
Synopsis: The Utah Department of Transportation (UDOT) has partnered with Utah State University (USU) for this green experiment to research the possibility of growing biodiesel producing, drought-tolerant crops such as canola, safflower and perennial flax adjacent to the state highways.
If this research is successful, it's possible that in the future UDOT could harvest enough seeds to make homegrown biodiesel and run its entire vehicle fleet. If everything works out, we could produce 500 gallons/mile of biodiesel per year. Other benefits to the department would include: savings in mowing/pest control costs and aesthetic improvement of right-of-way with red, blue, yellow flowers.
Time required: 50 minutes

72. Research Funding & Programming
Track: Structures Research Hydraulics RofW
Presenters: Various Research Managers
Synopsis: Presentation by the Research team on "Research Funding Opportunities/Sources".
This session will cover various funding sources from the following:
*Pooled-Fund- Lead State Program
*Pooled-Fund- Participating State Program
*UTRAC Project Funding Status
*University Transportation Centers Program
*Highways for Life Program
*NCHRP Program
*IDEA Program
*Technology Transfer Funding from FHWA
*SBIR Funding
*And more
Time required: 50 minutes

73. High School Students: A UDOT-Sponsored Informational Session for High School Student Attendees.
Track: Leadership/Organizational
Presenters: Carla Freebairn
Synopsis: A UDOT-sponsored informational session for high School Student Attendees
Time required: 50 minutes

74. Possible Question and Answer Period